#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization International Bureau



# 

#### (43) International Publication Date 18 March 2004 (18.03.2004)

#### **PCT**

## (10) International Publication Number WO 2004/023336 A2

(51) International Patent Classification7:

G06F 17/30

(21) International Application Number:

PCT/GB2003/003854

(22) International Filing Date:

8 September 2003 (08.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0220748.8

6 September 2002 (06.09.2002)

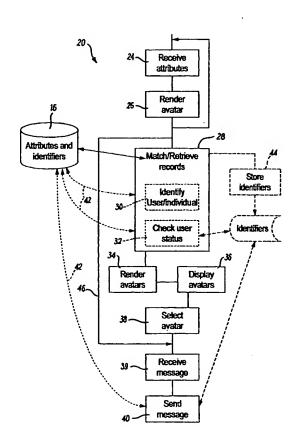
- (71) Applicant (for all designated States except US): SAW-YOU.COM LIMITED [GB/GB]; 2 Clifton Street, Glasgow G3 7LA (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KINSELLA,

Michael, Patrick [GB/GB]; 3 Tumberry Road, Glasgow G11 5AF (GB). MCGUIRE, John, Law [GB/GB]; 8 Mains Ave, Glasgow G46 6QY (GB).

- (74) Agent: KENNEDYS PATENT AGENCY LIMITED: Floor 5, Queens House, 29 St. Vincent Place, Glasgow G1 2DT (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: IMPROVED COMMUNICATION USING AVATARS



(57) Abstract: A messaging method is described in which avatars, representative of attributes of users and individuals, are used for capturing information and/or selecting users or individuals. In one embodiment, an avatar is rendered in response to attributes input by a user, and a matching and retrieval selects records from a database. Avatars are rendered in accordance with the attributes in the records. The user selects an avatar, and is able to communicate anonymously with the individual. Methods and systems for capturing data using avatars and selecting individuals using avatars are also described.

## WO 2004/023336 A2

Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### Published:

 without international search report and to be republished upon receipt of that report

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	Improved communication using avatars
12	
13	This invention relates to the general fields of capturing
14	attribute data of individuals and selecting individuals
15	using captured data, and more specifically to the use of
16	avatars for capturing attribute data and selecting
17	individuals. Aspects of the invention relate to
18	messaging systems and methods utilising avatars to
19	facilitate rich but anonymous interaction.
20	
21	In the field of messaging, text is commonly used to
22	identify users of messaging systems in ways that describe
23	their physical, geographical or social attributes. This
24	allows others to select users for the receipt of
25	messages. Such text offers descriptive information but
26	maintains anonymity and privacy. A series of static
27	graphical icons can also convey this information.
28	However, the problem with this approach is that it does
29	not present users with a simple, instant visual
30	description that assists in making a go /no-go decision
31	on whether or not to pursue contact.
32	

2

If a user wants to show other users what they look like, 1 they can post a photograph. However, a high percentage 2 of Internet dating site users do not and will not post 3 photographs of themselves for reasons of personal 4 privacy; they would inevitably lose some anonymity. 5 6 Posting some other static image depicting some of their 7 physical attributes is an option, for example using a 8 drawing program or scan of a hand drawing. However, this 9 is often not convenient for the user and it does not 10 facilitate automated searching for or organising of the 11 attributes, other than by some complex pattern-12 recognition software trawling through the images. 13 14 The user is therefore constrained in that they can either 15 keep anonymity but not convey their appearance 16 adequately, or lose anonymity by showing what they look 17 like with a photograph. Furthermore, a problem with 18 static images, including photographs, is that they are 19 not easy to update with real time information about the 20 21 user. 22 At present, Microsoft®'s instant messaging service 23 depicts its Buddy List as a set of monochrome pawns with 24 names below. This pawn representation does provide 25 anonymity if accompanied by a user name that is 26 pseudonymous, and thus would hide the identity of the 27 associated user. However, the viewer still has to rely 28 on the text to identify users, due to the uniformity of 29 the pawn representations. 30 31 Items on the Buddy List also provide status information, 32

for example indicating that another user is on-line, but

PCT/GB2003/003854 WO 2004/023336 3

fail to convey more detailed information about the user. 1 For example, characteristics such as the users 2 appearance, location, or present activity are not 3 conveyed. Worse still, the rendering of the Buddies on the list is performed without reference to the current status of the attributes of the user being represented. 6 Even if the text is descriptive of such attributes, it is 7 rendered using information that was entered at the time 8 of registration of the users' account. 9 10 It is an object of the present invention to provide 11 convenient capture of individual's attributes. 12 13 It is a further object of the present invention to 14 provide convenient selection of an individual from their 15 attributes. 16 17 It is a further object of the present invention to 18 provide convenient use of individual's attributes for 19 messaging. 20 21 According to a first aspect of the invention, there is 22 provided a method of messaging comprising the steps of: 23 - maintaining a database of records, each record 24 comprising attributes of an individual and an 25 identifier of said individual; 26 - receiving at least one input attribute from a 27 user; 28 retrieving at least one record from the database 29 in accordance with at least one input attribute; 30 - identifying an individual corresponding to each 31 selected record; 32

1	<ul> <li>rendering at least one avatar using attributes</li> </ul>
2	comprised in the at least one selected record;
3	<ul><li>selecting a rendered avatar;</li></ul>
4	<ul> <li>sending a message to the identified individual.</li> </ul>
5	
6	According to a second aspect of the invention, there is
7	provided a method of messaging comprising the steps of:
8	<ul> <li>maintaining a database of records, each record</li> </ul>
9	comprising attributes of an individual and an
10	identifier of said individual;
11	<ul> <li>receiving at least one input attribute from a</li> </ul>
12	user;
13	<ul> <li>rendering an avatar responsive to the input</li> </ul>
14	attributes;
15	<ul> <li>retrieving at least one record from the database</li> </ul>
16	in accordance with at least one input attribute;
17	<ul> <li>identifying an individual corresponding to each</li> </ul>
18	retrieved record;
19	<ul> <li>sending a message to the identified individual.</li> </ul>
20	
21	The method may comprise the additional step of rendering
22	at least one avatar using attributes comprised in the
23	selected records.
24	
25	The method may comprise the additional step of selecting
26	at least one of the rendered avatars.
27	
28	Preferably, the step of selecting at least one of the
29	rendered avatars is in response to a selection input by
30	the user.
31	

5

1 The method may comprise the additional step of receiving

2 the message from the user.

3

4 The method may comprise the additional step of verifying

5 that a status of a user is such that the user is not

6 blocked from sending a message to an identified

7 individual.

8

9 The method may comprise the additional step of

10 determining whether a user has been assigned a status of

11 disallowed sender to an identified individual, and

12 preventing the rendering of an avatar corresponding to

13 that identified individual.

14

15 Preferably, the step of determining a status of the user

16 is dependent on the identity of the user and the identity

17 of the individual.

18

19 The status of the individual may be determined using the

20 database.

21

22 The method may comprise the steps of storing an

23 identifier associated with a selected record, and

24 determining the status of the individual using the

25 associated identifier.

26

27 The method may comprise attributes relating to a location

28 of an individual.

29

30 According to a third aspect of the invention, there is

31 provided a system for messaging comprising:

PCT/GB2003/003854

WO 2004/023336 PCT/

1	<ul> <li>a storage means for storing a plurality of</li> </ul>
2	records, each record comprising attributes of an
3	individual and an identifier of said individual;
4	<ul> <li>an avatar rendering and selection means for</li> </ul>
5	rendering an avatar using attributes stored in the
6	storage means, and selecting a rendered avatar;
7	and
8	<ul> <li>a messaging means, for identifying an individual</li> </ul>
9	corresponding to the selected rendered avatar, and
10	sending a message to the identified individual.
11	
12	The system may comprise a display for displaying a
13	rendered avatar to the user.
14	
15	Preferably, the avatar rendering and selection means is
16	adapted to receive attributes input by a user for
17	matching and retrieving data in the storage means and
18	render an avatar responsive to said input attributes.
19	
20	Preferably, the avatar rendering and selection means is
21	adapted to match input attributes with records in the
22	database and retrieve matched records.
23	
24	Optionally, the input attributes relate to the location
25	of an individual.
26	
27	Optionally, the input attributes include details of an
28	individual's physical appearance.
29	
30	The details of the individual's physical appearance may
31	be selected from a list of head shapes, eye colours,
32	eyelid states, mouth types, hairstyles, hair colours,
33	skin colours, breast size, belly size and clothing.

7

1 The clothing may be selected from a list comprising: top 2 style, top colour, bottom style, bottom colour, shoe type 3 and shoe colour. 4 5 The attributes of an individual may include details of 6 the individual's behaviour. 7 8 The details of the individual's behaviour may be selected 9 from a list comprising: smoking preference, drink 10 preference, musical preference, and interests. 11 12 The avatar rendering and selection means may be further 13 adapted to verify that a status of a user is such that 14 the user is not blocked from sending a message to an 15 identified individual. 16 17 The avatar rendering and selection means may be further 18 adapted to determine whether a user has been assigned a 19 status of disallowed sender to an identified individual, 20 and prevent the rendering of an avatar corresponding to 21 that identified individual. 22 23 The avatar rendering and selection means may be further 24 adapted to determine the status of the individual using 25 26 the database. 27 The avatar rendering and selection means may be adapted 28 to store an identifier associated with a selected record, 29 and the status of the individual may be determined using 30 the associated identifier. 31

8

1	Preferably, the inputting of attributes is performed
2	using a graphical user interface that includes an output
3	rendered avatar.
4	
5	According to a fourth aspect of the invention, there is
6	provided a method of capturing attributes of individuals
7	comprising the steps of:
8	<ul> <li>maintaining a database of records, each record</li> </ul>
9	comprising attributes of an individual and an
10	identifier of an individual;
11	<ul> <li>receiving at least one input attribute from a</li> </ul>
12	user;
13	<ul> <li>rendering an avatar, responsive to said input</li> </ul>
14	attributes.
15	
16	According to a fifth aspect of the invention, there is
17	provided a system for capturing attributes of individuals
18	comprising:
19	<ul> <li>a storage means for storing a plurality of</li> </ul>
20	records, each record comprising attributes of an
21	individual and an identifier of said individual;
22	<ul> <li>a character engine means for receiving input</li> </ul>
23	attributes of an individual and rendering an
24	avatar, responsive to said input attributes.
25	
26	According to a sixth aspect of the invention, there is
27	provided a method of selecting individuals comprising the
28	steps of:
29	<ul> <li>maintaining a database of records, each record</li> </ul>
30	comprising attributes of an individual and an
31	identifier of said individual;

1	<ul> <li>receiving at least one input attribute from a</li> </ul>
2	user;
3	<ul> <li>retrieving at least one record from the database</li> </ul>
4	in accordance with at least one input attribute;
5	<ul> <li>rendering at least one avatar using attributes</li> </ul>
6	comprised in the at least one selected record;
7	<ul> <li>selecting a rendered avatar.</li> </ul>
8	
9	According to a seventh aspect of the invention, there is
10	provided a system of selecting individuals comprising:
11	<ul> <li>a storage means for storing a plurality of</li> </ul>
12	records, each record comprising attributes of an
13	individual and an identifier of said individual;
14	<ul> <li>an avatar rendering and selection means for</li> </ul>
15	rendering an avatar using attributes stored in the
16	storage means, and selecting a rendered avatar.
17	
18	In order to provide a better understanding of the present
19	invention, various embodiments will now be described, by
20	way of example only, and with reference to the
21	accompanying Figures in which:
22	
23	Figure 1 illustrates a flow chart of the steps of a
24	method of capturing attributes including rendering
25	an avatar, in accordance with an embodiment of the
26	invention;
27	
28	Figure 2 illustrates a flow chart of the steps of a
29	messaging method including the steps of selecting
30	individuals using selection of avatars, in
31	accordance with an embodiment of the present
32	invention;

10

1		
2	Figure 3 illustrates a graphical user interface for	
3	building an avatar and a selection of avatars	
4	rendered to display a range of attributes in	
5	accordance with an embodiment of the invention; and	
6		
7	Figure 4 illustrates the components of a system in	
8	accordance with an embodiment of the present	
9	invention;	
10		
11	Figure 5 illustrates a web services model used with	
12	an embodiment of the invention.	
13		
14	The invention is a method and system that functions to	
15	capture attributes of individuals through a convenient	
16	interface for both the maintenance of a database and	
17	selection of records in the database for messaging	
18	purposes.	
19		
20	With reference to Figure 1, a flowchart 10 of an example	
21	method of capturing and using attributes of individuals	
22	is shown.	
23		
24	During registration, the system determines 12 the	
25	identifier of the individual, e.g. an email address,	
26	name, or pseudonym, and stores 14 the identifier in the	
27	database 16. The database 16 is maintained to contain	
28	attributes and identifiers of individuals.	
29		
30	The user inputs 18 attributes of an individual using a	
31	"character engine" graphical user interface that includes	
32	a displayed avatar. During registration, the attributes	
33	are personal attributes relating to the user itself,	

11

WO 2004/023336 PCT/GB2003/003854

1 although they could also relate to another individual.

- 2 The displayed avatar is rendered 20 responsive to the
- 3 input attributes. The input attributes are stored 22 in
- 4 the database 16 along with the identifier. The data
- 5 including the attributes and the identifier can be termed
- 6 a record.

7

- 8 This process allows users to describe themselves by
- 9 building the avatar. In this embodiment, instead of
- 10 using a series of drop down menus or text inputs, users
- 11 build up the image of an avatar by graphically choosing
- 12 hairstyle, hair colour, face shape, etc.

13

- 14 With reference to Figure 3, upon registration, a
- 15 graphical user interface 310 displays a naked avatar 311
- 16 with a menu 312 for selecting attributes 313. Attribute
- 17 selection button 314 can be clicked on by the user to
- 18 change the selected attribute, which also triggers the
- 19 avatar-rendering module to re-render and output the
- 20 avatar with the selected attribute depicted. A save
- 21 button 315 can be clicked by the user to trigger the
- 22 character engine to store the attribute in the database.
- 23 Based on the physical appearance users now build up their
- 24 avatar.

- 26 A selection of such awatar heads 316 is shown. Further
- 27 physical appearance is differentiated by selecting the
- 28 colour of clothing and preferred type of drink. Male
- 29 figures 317 can be described down to belly size
- 30 reflecting physical build. Female avatars 318 can be
- 31 enhanced with chest size, makeup, clothing colour and
- 32 preferred drink. Facial expressions 319 can be created
- 33 by the use of eyelids.

12

1 2 Attributes of an individual include details of the 3 individual's physical appearance such as their head shape, eye colour, eyelid state, mouth type, hairstyle, 4 5 hair colour, skin colour, breast size, belly size and 6 their clothing. 7 8 Their clothing is selected from top style, top colour, 9 bottom trousers, bottom colour, shoe type, and shoe 10 colour. 11 The attributes may include details of the individual's 12 13 behaviour such as smoking preference, drink preference, 14 musical preference, interests and clothing preferences. 15 Attributes may also include details of an individual's 16 favourite community such as a sporting or musical 17 community. 18 19 The attributes are stored in the database, starting with 20 a "naked" avatar defined by the following data: 21 22 char head shape=oval 23 char eye col=blue 24 char eye lid=open 25 char mouth=mouth6 26 char hair style=s15 27 char hair col=ginger 28 char fag=no 29 char specs=none 30 char facial=none 31 char makeup=lash 32 char sex=female 33 char col=black

PCT/GB2003/003854 WO 2004/023336 13

```
1
  char chest=medium
2
   char belly=none
```

- char top=tshirt 3
- 4 char top col=white
- char bot=skirt1 5
- 6 char bot col=blue
- 7 char shoe=shoes
- char\_shoe\_col=white 8
- 9 char drink=cock

10

- This data represents a blank avatar that is displayed at 11
- the start of the registration process, or when a user 12
- visits the site and is not logged in. Note that although 13
- some of the values are actually set at this point, they 14
- need not be rendered on the avatar. For example 15
- 'char\_hair\_col = ginger' does not appear as ginger hair 16
- on the character because 'char\_hair\_style=s15' is given, 17
- which corresponds to the avatar having no hair. 18

19

- After inputting or changing the attributes, the final 20
- attributes are stored in the database, for example: 21

- char head shape=round 23
- 24 char eye\_col=brown
- char eye lid=open 25
- 26 char mouth=mouth1
- char hair style=s13 27
- char hair col=black 28
- 29 char\_fag=no
- 30 char specs=none
- char facial=none 31
- char makeup=lash 32
- 33 char sex=female

14

- 1 char\_col=white
- 2 char chest=none
- 3 char belly=none
- 4 char top=sweat
- 5 char top col=yellow
- 6 char bot=bare
- 7 char bot col=blue
- 8 char shoe=bare
- 9 char shoe col=blue
- 10 char\_drink=none

11

- 12 The user has thus created a personal avatar, and is able
- 13 to download either the rendered avatar or the attributes
- 14 themselves to their computer or mobile telephone for a
- 15 variety of purposes. These purposes include personalised
- 16 screen savers, telephone screen logos, email signatures
- 17 or instant messaging personalities.

18

- 19 The "character engine" graphical user can be presented
- 20 via web pages, I-mode, WAP, GPRS, MMS or SMS technologies
- 21 and protocols using conventional programming techniques.
- 22 In this embodiment, a Macromedia® Flash front end is used
- 23 with an asp.net connection module to the database and a
- 24 Microsoft® SQL Server database engine.

25

- 26 In certain embodiments, the avatar may be animated (e.g.
- 27 rendered using an animated GIF) or may perform a number
- 28 of automated tasks such as speech or making sound. The
- 29 avatar or database may co-operate with software agents
- 30 that perform other automated tasks. The avatars may be
- 31 3D representations, to which a user may associate a
- 32 variety of animated routines and movements.

1 The avatars or stored attributes can be migrated to

- 2 personalise web pages or for use in computer games. In
- 3 addition, they may be used in the automated production of
- 4 merchandise such as stationery (e.g. business cards),
- 5 clothing, mouse mats, toys or other goods using the
- 6 attributes to select various components of the toys or
- 7 other goods. The stored identifier can be used for
- 8 addressing delivery of the produced merchandise, etc.

9

- 10 At a later time, users may update 23, add to or amend
- 11 their associated attributes, resulting in the rendering
- 12 of an updated awatar and storing of an updated record.
- 13 Any associated software modules, such as e-mail programs
- 14 can remotely access the latest avatar to provide an
- 15 updated graphical e-mail signature.

16

- 17 Users may also create avatars representative of friends
- 18 or contacts, which can be used in directories, contact
- 19 lists or as caller ids.

20

- 21 An aspect of the invention relates to a messaging method,
- 22 including a method of selecting individuals, and is shown
- 23 in Figure 2 of the drawings, generally depicted at 20.

24

- 25 Messaging between users is performed by the maintenance
- 26 of a database 16 of attributes and identifiers of
- 27 individuals, as described above. In the preferred
- 28 embodiment, the records in the database are entered in
- 29 the manner described with reference to Figures 1 and 3.

- 31 A user inputs 24 attributes relating to an individual
- 32 with which he may wish to communicate. These input
- 33 attributes are used to render 26 an avatar, which is

1 representative of an individual with which the user may

- 2 wish to communicate. The attributes are entered by means
- 3 of a "character engine" graphical user interface as
- 4 described above with reference to Figures 1 and 3. The
- 5 input attributes may be desired physical or social
- 6 characteristics, or may relate to a geographical location
- 7 of an individual to be communicated with, or a
- 8 combination of all three.

9

- 10 The input attributes used for selecting records from the
- 11 database may be attributes relating to the location of
- 12 the user himself. For example, if the user inputs his
- 13 geographical location, such as the name of a social venue
- 14 or bar, via his mobile phone, the system subsequently
- 15 selects and retrieves records 28 from the database that
- 16 match only that location.

17

- 18 Subsequently, records from the database providing a match
- 19 with the input attributes are selected and retrieved 28
- 20 from the database, and avatars are rendered 30 according
- 21 to the stored attributes. The rendered avatars are
- 22 displayed 36 on the user's display.

23

- 24 There may be one avatar rendered, or many, depending on
- 25 the manner in which the records are selected from the
- 26 database 16 by a matching and retrieval process. The
- 27 selection process involves a trawl through the database
- 28 records, and those records having the most attributes
- 29 matching the input attributes are selected and avatars
- 30 are rendered. Typically, the eight best-matched avatars
- 31 are rendered, in order of suitability.

17

1 The embodiment of Figure 2 includes an optional status

- 2 checking step 32. An individual with a record stored on
- 3 the database is able to assign a status to other users,
- 4 from a set of possible statuses. These possible statuses
- 5 include recipient, disallowed sender, and allowed sender.
- 6 "Recipient" status is for users previously communicated
- 7 with, or users with which the individual would wish to
- 8 communicate. "Disallowed sender" is a status assigned to
- 9 users from which the individual does not wish to receive
- 10 messages. "Allowed sender" is the default status for
- 11 users that may send messages to an individual. The
- 12 statuses are user-specific, in that a status is assigned
- 13 to a particular user (an assignee) by a particular
- 14 individual (the assignor), and does not effect the
- 15 assignees ability to communicate with individuals other
- 16 than the assignor.

17

- 18 The status checking step 32 verifies the status assigned
- 19 to the user by the individuals corresponding to the
- 20 selected records. If any of the individuals have
- 21 assigned a disallowed sender status to the user, an
- 22 avatar will not be rendered responsive to their
- 23 attributes, and thus will not be presented to the user
- 24 for selection in subsequent steps. The user and the
- 25 individuals, and their statuses, could be identified from
- 26 the database, as shown by the dotted lines. Identity and
- 27 status information may be accessed from a database (not
- 28 shown) other than the database 16.

29 .

- 30 It should be noted that the identification of the user
- 31 and the individuals, and their statuses could be carried
- 32 out after the matching and retrieval process, or the
- 33 matching process itself could ensure that the

18

1 identification and status requirements are met before

2 retrieval of the records.

3

- 4 The user then makes a selection 38 of the rendered
- 5 avatars by clicking on the rendered avatar or an
- 6 associated graphical display. The user enters a message
- 7 which is forwarded to the individual who corresponds to
- 8 the identifier of the selected avatar. The identity
- 9 address of the individual may be obtained from the
- 10 database 16, or another database (not shown), as depicted
- 11 by the arrows 42.

12

- 13 As an alternative to the arrows 42 accessing identifier
- 14 information from the database, all relevant identifiers,
- 15 including status information can be retrieved during the
- 16 retrieval 28 of the records. The identifiers can be
- 17 stored 44, for example, as a link or embedded identifiers
- 18 associated with the record or the rendered avatar.

19

- 20 The above-described method allows anonymous messaging
- 21 between users, whilst allowing a user to select a
- 22 recipient from a number of possible recipients based on a
- 23 visual impression obtained from the graphically created
- 24 avatars and other selection criteria.

- 26 The above description relates to a messaging method,
- 27 although it will be appreciated that steps of the method
- 28 could be used simply as a convenient method of selecting
- 29 one or more individuals by:
- 30 maintaining a database 16 of attributes and identifiers
- 31 of individuals;
- 32 retrieving 28 records from the database using input
- 33 attributes;

1 rendering 34 and displaying 36 an avatar using attributes

19

- 2 stored in the selected records; and
- 3 selecting 38 a rendered avatar.

4

- 5 It will also be apparent that although the above
- 6 described messaging method renders avatars at two
- 7 distinct steps (the input stage and the user selection
- 8 stage), there may embodiments in which avatars are
- 9 rendered at only one of the steps.

10

- 11 For example, a user may have pre-input a series of
- 12 desired attributes, for which an avatar was rendered and
- 13 stored. At a later time, for example when the user is
- 14 present in a geographical location such as a bar or club,
- 15 the user inputs the name of that location. The system
- 16 conducts a search based on the pre-input attributes and
- 17 the updated location, to provide a selection of avatars
- 18 to the user that correspond to individuals that have
- 19 indicated that they are present at that location. The
- 20 user has thus obtained a short list of possible
- 21 recipients that are in his immediate vicinity.

22

- 23 Alternatively, the messaging method may only render an
- 24 avatar at the step of capturing the attributes, with the
- 25 subsequent selection of the recipient being automated 46
- 26 by the system based on the input attributes and stored
- 27 records.

- 29 An alternative use of the system is in providing an
- 30 individual with a list of users whose desired attributes
- 31 match his own personal avatar. In this example,
- 32 previously stored attributes desired by an individual are
- 33 used to carry out the matching and retrieval process

20

- 1 described above. One or more individuals corresponding
- 2 to records retrieved by the search are notified that they
- 3 have been located, and an avatar corresponding to the
- 4 user carrying out the search is displayed. The
- 5 individual is then able to communicate with the user.

6

- 7 With reference to Figure 4, an example system for
- 8 capturing attributes of individuals, selecting
- 9 individuals, and messaging is shown.

10

- 11 The system includes a database 50 of records, including
- 12 attributes and identifiers of individuals implemented in
- 13 Microsoft® SQL Server. A registration module 52 with its
- 14 input 54 and display 56 is also provided. The
- 15 registration module 52 also includes a module 58 for
- 16 determining the identifier of the individual, and a
- 17 module 60 implemented in asp.net for storing the
- 18 identifier in the database 50.

19

- 20 The system further comprises a character engine 62 for
- 21 inputting attributes, implemented using Macromedia® Flash
- 22 with an input 64 and a display 66. The character engine
- 23 also includes a selection module 68 for inputting or
- 24 selecting attributes of an individual, and a rendering
- 25 module 70 for rendering an avatar, in response to the
- 26 input/selected attributes.

27

- 28 The character engine has a database access module 72 that
- 29 stores the input attributes in the database 50.

30

- 31 The character engine 62 may be used to input attributes
- 32 for selecting data from the storage means.

1 The system for messaging accesses the storage means 50

- 2 for storing the attributes and identifiers of
- 3 individuals. The system includes an avatar rendering and
- 4 selection engine 74 with an input 76, a display 78, and a
- 5 module 80 for rendering an avatar using attributes stored
- 6 in the storage means. The system also includes a module
- 7 82 for selecting a rendered avatar, and a database access
- 8 module 84. The avatar rendering and selection engine 74
- 9 also includes identifier retrieval and status checking
- 10 modules 77, 79 respectively, for determining whether or
- 11 not a user has been specified as a blocked sender by the
- 12 identified individuals.

13

- 14 The system includes a messaging engine 86 with an
- 15 optional module 88 for identifying a recipient, allowed
- 16 sender, or disallowed sender corresponding to the
- 17 selected rendered avatar, and a module 92 for sending to,
- 18 forwarding from, or blocking from the identified
- 19 recipient or allowed sender or disallowed sender.

20

21 The messages are routed via a messaging network 94.

22

- 23 Figure 5 shows a possible implementation in which the
- 24 methods and systems of the present invention could be
- 25 incorporated.

- 27 With reference to Figure 5, the Web services link 410
- 28 allows third-party services 412 to access and retrieve
- 29 locally created avatars and/or attributes from the
- 30 database 414 which are created and maintained by systems
- 31 413 and methods in accordance with the present invention
- 32 by users at terminals 415. The third party can access
- 33 and retrieve based on a unique identifier such as e-mail

1 address or phone number. This allows the third party to

- 2 incorporate the personalised avatar and/or attributes
- 3 into their service or database 416 for the benefit of
- 4 their users on terminals 417. For example, this service
- 5 could be a messaging service such as Hotmail®, MSN
- 6 Instant Messenger®, or an ISP wishing to personalise
- 7 their pages.

8

- 9 Via a Web Service is just one possible method of
- 10 providing the avatars. The avatars may also be provided
- 11 through agreement & database sharing, for example through
- 12 a telecom interface 418.

13

- 14 Although the embodiments of the invention described with
- 15 reference to the drawings comprise computer apparatus and
- 16 processes performed in computer apparatus, the invention
- 17 also extends to computer programs, particularly computer
- 18 programs on or in a carrier, adapted for putting the
- 19 invention into practice.

20

- 21 The program may be in the form of source code, object
- 22 code, a code of intermediate source and object code such
- 23 as a code in partially compiled form suitable for use in
- 24 the implementation of the processes according to the
- 25 invention.

- 27 The carrier may be any entity or device capable of
- 28 carrying the program. For example, the carrier may
- 29 comprise a storage medium such as ROM, for example a CD-
- 30 ROM or a semiconductor ROM, or a magnetic recording
- 31 medium, for example, a floppy disc or hard disc.
- 32 Furthermore, the carrier may be a transmissible carrier
- 33 such as an electrical or optical signal which may be

23

1 conveyed via electrical or optical cable or by radio or

2 other means.

3

4 When the program is embodied in a signal which may be

5 conveyed directly by a cable or other device or means,

6 the carrier may be constituted by such cable or other

7 device or means.

8

9 Alternatively, the carrier may be an integrated circuit

10 in which the program is embedded, the integrated circuit

11 being adapted for performing, or for use in the

12 performance of, the relevant processes.

13

14 Further modifications and improvements may be added

15 without departing from the scope of the invention herein

16 described.

1	Cla	ims
2		
3	1.	A method of messaging comprising the steps of:
4		- maintaining a database of records, each record
5		comprising attributes of an individual and an
6		identifier of said individual;
7		- receiving at least one input attribute from a
8		user;
9		- retrieving at least one record from the database
10		in accordance with at least one input attribute;
11		- identifying an individual corresponding to each
12		selected record;
13		<ul> <li>rendering at least one avatar using attributes</li> </ul>
14		comprised in the at least one selected record;
15		<pre>- selecting a rendered avatar;</pre>
16		- sending a message to the identified individual.
17		
18	2.	A method as claimed in Claim 1 comprising the
19		additional step of rendering an avatar in response
20		to the input attributes.
21		•
22	3.	A method of messaging comprising the steps pf:
23		<ul> <li>maintaining a database of records, each record</li> </ul>
24		comprising attributes of an individual and an
25		identifier of said individual;
26		<ul> <li>receiving at least one input attribute from a</li> </ul>
27		user;
28		<ul> <li>rendering an avatar responsive to the input</li> </ul>
29		attributes;
30		- retrieving at least one record from the database
31		in accordance with at least one input attribute;

1		<ul> <li>identifying an individual corresponding to each</li> </ul>
2		retrieved record;
3		- sending a message to the identified individual.
4		
5	4.	The method as claimed in Claim 3 comprising the
6		additional step of rendering at least one avatar
7		using attributes comprised in the selected records.
8		
9	5.	The method as claimed in Claim 4 comprising the
10		additional step of selecting at least one of the
11		rendered avatars.
12		
13	6.	The method as claimed in Claim 1 or Claim 5, wherein
14		the step of selecting at least one of the rendered
15		avatars is in response to a selection input by the
16		user.
17		
18	7.	The method as claimed in any preceding Claim
19		comprising the additional step of receiving the
20		message from the user.
21		
22	8.	The method as claimed in any preceding Claim
23		comprising the additional step of verifying that a
24		status of a user is such that the user is not
25		blocked from sending a message to an identified
26		individual.
27		
28	9.	The method as claimed in any preceding Claim
29		comprising the additional step of determining
30		whether a user has been assigned a status of
31		disallowed sender to an identified individual, and
32		preventing the rendering of an avatar corresponding
33		to that identified individual.

26

1		
2	10.	The method as claimed in Claim 8 or Claim 9 wherein
3		the step of determining a status of the user is
4		dependent on the identity of the user and the
5		identity of the individual.
6		
7	11.	The method as claimed in Claim 9 or Claim 10 wherein
8		the status of the individual is determined using the
9		database.
10		
11	12.	The method as claimed in Claim 9 or Claim 10
12		comprising the steps of storing an identifier
13		associated with a selected record, and determining
14		the status of the individual using the associated
15		identifier.
16		
17	13.	The method as claimed in any preceding Claim wherein
18		the input attributes comprise attributes relating to
19		a location of an individual.
20		
21	14.	A system for messaging comprising:
22		<ul> <li>a storage means for storing a plurality of</li> </ul>
23		records, each record comprising attributes of an
24		individual and an identifier of said individual;
25		<ul> <li>an avatar rendering and selection means for</li> </ul>
26		rendering an avatar using attributes stored in the
27		storage means, and selecting a rendered avatar;
28		and
29		- a messaging means, for identifying an individual
30		corresponding to the selected rendered avatar, and
31		sending a message to the identified individual.

27

1	15.	The system as claimed in Claim 14 further comprising
2		a display for displaying a rendered avatar to the
3		user.
. 4		
5	16.	The system as claimed in Claim 14 or Claim 15
6		wherein the avatar rendering and selection means is
7		adapted to receive attributes input by a user for
8		matching and retrieving data in the storage means
9		and render an avatar responsive to said input
10		attributes.
11		
12	17.	The system as claimed in any of Claims 14 to 16
13		wherein the avatar rendering and selection means is
14		adapted to match input attributes with records in
15		the database and retrieve matched records.
16		
17	18.	The system as claimed in any of Claims 14 to 17
18		wherein the input attributes relate to the location
19		of an individual.
20		
21	19.	The system as claimed in any of Claims 14 to 18
22		wherein the input attributes include details of an
23		individual's physical appearance.
24		
25	20.	The system as claimed in Claim 19 wherein the
26		details of the individual's physical appearance are
27		selected from a list of head shapes, eye colours,
28		eyelid states, mouth types, hairstyles, hair
29		colours, skin colours, breast size, belly size and
30		clothing.
31		
32	21.	The system as claimed in Claim 20 wherein the
33		clothing is selected from a list comprising: top

style, top colour, bottom style, bottom colour, shoe
type and shoe colour.

3

4 22. The system as claimed in any of Claims 14 to 21
5 wherein the attributes of an individual include
6 details of the individual's behaviour.

7

8 23. The system as claimed in Claim 22 wherein the
9 details of the individual's behaviour are selected
10 from a list comprising: smoking preference, drink
11 preference, musical preference, and interests.

12

13 24. The system as claimed in any of Claims 14 to 23

14 wherein the avatar rendering and selection means is

15 further adapted to verify that a status of a user is

16 such that the user is not blocked from sending a

17 message to an identified individual.

18

The system as claimed in any of Claims 14 to 23
wherein the avatar rendering and selection means is
further adapted to determine whether a user has been
assigned a status of disallowed sender to an
identified individual, and prevent the rendering of
an avatar corresponding to that identified
individual.

26

27 26. The system as claimed in any of Claims 14 to 25
28 wherein the avatar rendering and selection means is
29 further adapted to determine the status of the
30 individual using the database.

31

32 27. The system as claimed in any of Claims 14 to 2633 wherein the avatar rendering and selection means is

1 adapted to store an identifier associated with a 2 selected record, and the status of the individual is 3 determined using the associated identifier. 4 The system as claimed in any of Claims 14 to 27 5 28. 6 wherein the inputting of attributes is performed 7 using a graphical user interface that includes an 8 output rendered avatar. 9 10 A method of capturing attributes of individuals 11 comprising the steps of: - maintaining a database of records, each record 12 13 comprising attributes of an individual and an identifier of an individual; 14 15 - receiving at least one input attribute from a 16 user; 17 - rendering an avatar, responsive to said input 18 attributes. 19 20 The method as claimed in Claim 29, further 30. 21 comprising the step of storing the input attributes 22 in the database. 23 The method as claimed in Claim 29 or Claim 30, 24 31. further comprising the steps of determining an 25 26 identifier of the individual and storing the 27 identifier in the database. 28 29 A system for capturing attributes of individuals 32. 30 comprising:

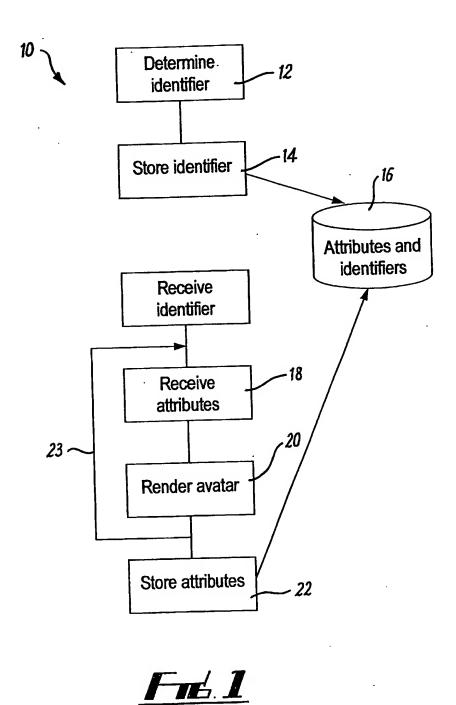
WO 2004/023336

PCT/GB2003/003854

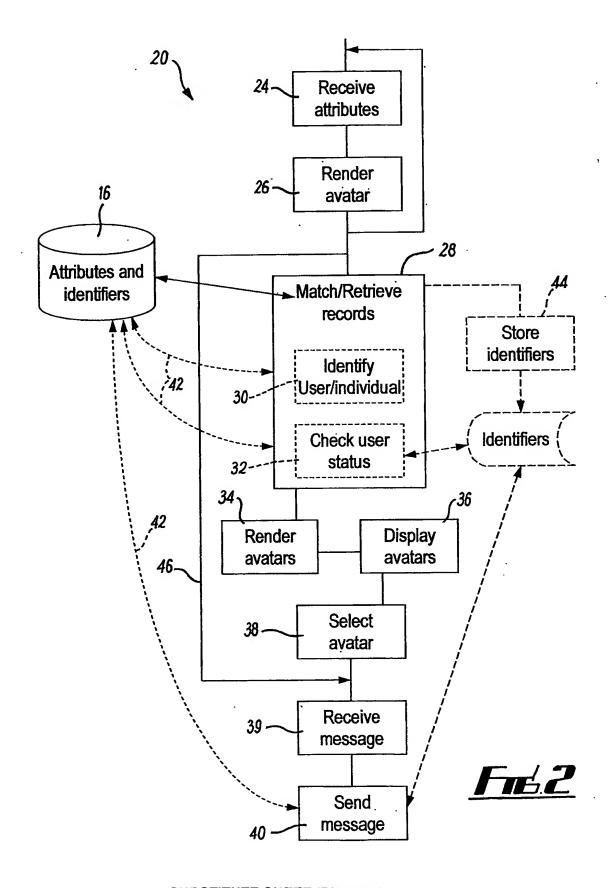
1		<ul> <li>a storage means for storing a plurality of</li> </ul>
2		records, each record comprising attributes of an
3		individual and an identifier of said individual;
4		- a character engine means for receiving input
5		attributes of an individual and rendering an
6		avatar, responsive to said input attributes.
7		
8	33.	The system as claimed in Claim 32 wherein the
9		character engine means is adapted to store the input
10		attributes in the database.
11		
12	34.	The system as claimed in Claim 32 or Claim 33
13		further comprising a registration means for
14		determining an identifier of the individual and
15		storing the identifier in the database.
16		
17	35.	A method of selecting individuals comprising the
18		steps of:
19		<ul> <li>maintaining a database of records, each record</li> </ul>
20		comprising attributes of an individual and an
21		identifier of said individual;
22		<ul> <li>receiving at least one input attribute from a</li> </ul>
23		user;
24		<ul> <li>retrieving at least one record from the database</li> </ul>
25		in accordance with at least one input attribute;
26		<ul> <li>rendering at least one avatar using attributes</li> </ul>
27		comprised in the at least one selected record;
28		- selecting a rendered avatar.
29		
30	36.	The method as claimed in Claim 35 comprising the
31		additional step of rendering an avatar in response
32		to the input attributes.

		·
1	37.	The method as claimed in Claim 35 or Claim 36
2		wherein the input attributes relate to the location
3		of a user.
4		
5	38.	A system of selecting individuals comprising:
6		<ul> <li>a storage means for storing a plurality of</li> </ul>
7		records, each record comprising attributes of an
8		individual and an identifier of said individual;
9		<ul> <li>an avatar rendering and selection means for</li> </ul>
10		rendering an avatar using attributes stored in the
11		storage means, and selecting a rendered avatar.
12		
13	39.	The system as claimed in Claim 38 further comprising
14		a character engine means for inputting attributes of
15		an individual and rendering an avatar responsive to
16		said attributes is adapted to input attributes for
17		selecting data in the storage means.
18		
19	40.	The system as claimed in Claim 38 or Claim 39
20		wherein the input attributes relate to the location
21		of an individual.
22		
23	41.	The system as claimed in any of Claims 38 to 40
24		wherein the input attributes include details of an
25		individual's physical appearance.
26		
27	42.	
28		details of the individual's physical appearance are
29		selected from a list of head shapes, eye colours,
30		eyelid states, mouth types, hairstyles, hair
31		colours, skin colours, breast size, belly size and
32		clothing.

1	43.	The system as claimed in Claim 42 wherein the
2		clothing is selected from a list comprising: top
3		style, top colour, bottom style, bottom colour, shoe
4		type and shoe colour.
5		
6	44.	The system as claimed in any of Claims 38 to 43
7		wherein the attributes of an individual include
8		details of the individual's behaviour.
9		
LO	45.	The system as claimed in Claim 44 wherein the
11		details of the individual's behaviour are selected
12		from a list comprising: smoking preference, drink
13		preference, musical preference, and interests.
14		
15	46.	The system as claimed in any of Claims 38 to 45
16		wherein the inputting of attributes is performed
17		using a graphical user interface that includes an
18		output rendered avatar.

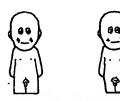


WO 2004/023336 PCT/GB2003/003854 2/5



**SUBSTITUTE SHEET (RULE 26)** 

Upon registration user begins with naked Male/Female WeeMee.

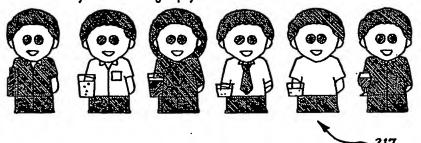


REGISTER FREE & CREATE A VIEE MET REGISTER FREE & CREATE A VIEE MET

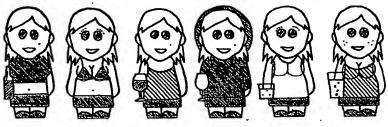
Based on physical appearance users now build up their character from Head Shape, Eye Colour, Ethnicity. This is further enhanced by Hair Style, Hair Colour, Glasses, Smoker, non-smoker.



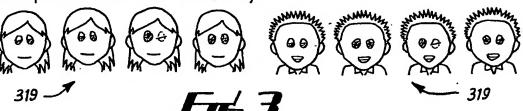
Further physical appearance is differentiated by Top Colour and type of Drink. The Male figure can be described down to "belly" size reflecting to physical build.



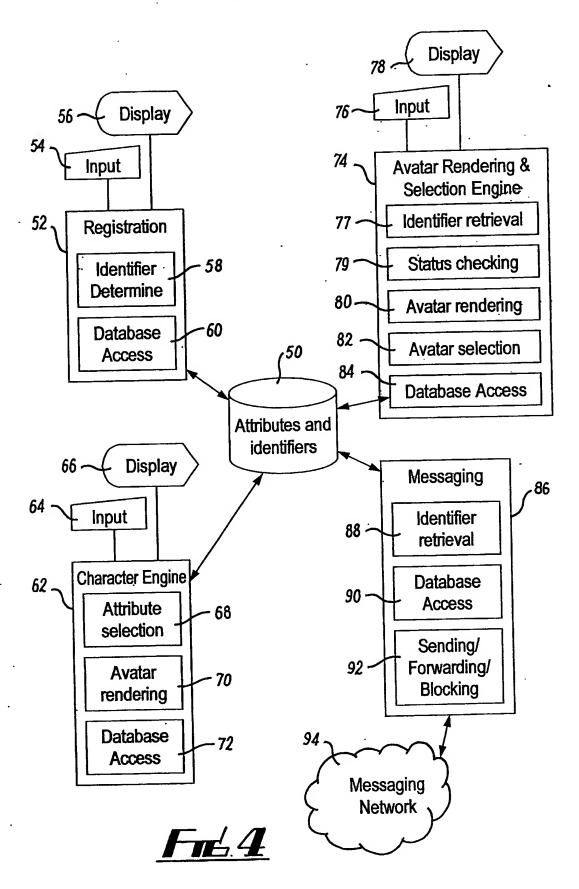
Female figure can be enhanced with Chest size, Make up, Top Colour and Drink type.



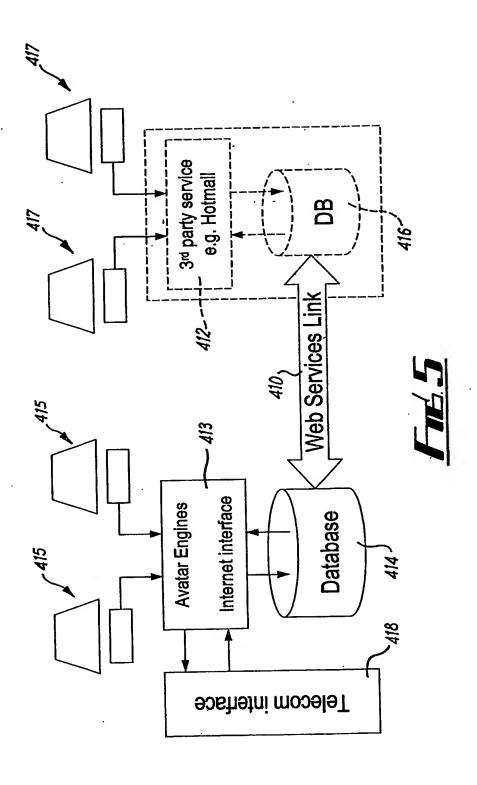
Facial expressions can be created with the use of eyelids.



**SUBSTITUTE SHEET (RULE 26)** 



SUBSTITUTE SHEET (RULE 26)



**SUBSTITUTE SHEET (RULE 26)**